Advantageously, as will be explained in greater detail herein, the end portions **212** of fin hardmask **200** will be utilized to form the base extension **186** of base **178**, wherein the base extensions **186** will also have substantially equal lengths. By assuring that the base extensions **186** are of equal length, system performance can be further optimized.

Referring to FIGS. **9**A, **9**B, **9**C and **9**D, an exemplary embodiment of the structure **100** of FIGS. **8**A-**8**D after exposed end portions **212** of the fin hardmask **200** have been removed is presented. FIG. **9**A is a top view of structure **100**. FIGS. **9**B, **9**C and **9**D are various side views of **9**A taken along their associated cut lines **9**B-**9**B, **9**C-**9**C and **9**D-**9**D respectively. However, for purposes of clarity in explaining the invention, each side view illustrates only the immediate surface structures cut by each side view's associated cut line and excludes any background structure.

After trimming the self-aligned edges **208**, the exposed end portions **212** of fin hardmask **200** are anisotropically etched away such that the top surfaces **214** of fin end portions **188** are now exposed. Because of the previous trimming process, the exposed top surfaces **214** are of substantially equal length and are bordered by the hardmask edges **210**.

Referring to FIGS. **10**A, **10**B, **10**C and **10**D, an exemplary embodiment of the structure **100** of FIGS. **9**A-**9**D after the remaining photoresist layer **204** has been removed is presented. FIG. **10**A is a top view of structure **100**. FIGS. **10**B, **10**C and **10**D are various side views of **10**A taken along their associated cut lines **10**B-**10**B, **10**C-**10**C and **10**D-**10**D respectively. However, for purposes of clarity in explaining the invention, each side view illustrates only the immediate surface structures cut by each side view's associated cut line and excludes any background structure.

After the top surfaces **214** of fin end portions **188** are exposed, the remaining photoresist layer **204** is removed by several well-known processes, such as a plasma ashing process or similar. Removing the photoresist layer **204** exposes the top surfaces of the fin hardmask **200** which covers over the fins **126**, **128**, **130**, **136**, **138** and **140**, as well as the entire top surface of the first dielectric fill material **202**.

Referring to FIGS. **11**A, **11**B, **11**C and **11**D, an exemplary embodiment of the structure **100** of FIGS. **10**A-**10**D after the second dielectric fill material **203** has been dispose over structure **100** is presented. FIG. **11**A is a top view of structure **100**. FIGS. **11**B, **11**C and **11**D are various side views of **11**A taken along their associated cut lines **11**B-**11**B, **11**C-**11**C and **11**D-**11**D respectively. However, for purposes of clarity in explaining the invention, each side view illustrates only the immediate surface structures cut by each side view's associated cut line and excludes any background structure.

After the remaining photoresist layer **204** has been removed, the second dielectric fill material **203** is disposed over the entirety of structure **100**, the second dielectric fill material being of a different material composition than that of the first dielectric fill material **202**. The second dielectric fill material **203** is then planarized (such as by chemical-mechanical polishing (CMP)) down to the level of the top surfaces of the fin hardmask **200** in order to complete the formation of base **178** for the SDB **112** in the isolation region **122**.

The base raised portion **179** of the newly formed base **178** is entirely disposed within, and fills, the shallow trench that is the isolation region **122**. Additionally the base extensions **186** of base **178** cover the entire top surfaces **214** of the fin end portions **188**.

The base extensions **186** are bordered by the first dielectric fill material **202** abutting each side of fin end portion **188**. The base extensions **186** are also bordered by the hardmask edges **210** of fin hardmask **200** which define the distal ends of the base extensions **186**. As a result, the base extensions **186** are not only self-aligned with the edges of fin end portions **188**, they extend a substantially equal length outward from either side of the base raised portion **179**. Additionally the base extensions **186** extend solely over the top surfaces **214** of the fin end portions **188** and are not disposed in any regions between the parallel rows of fins.

Referring to FIGS. **12**A, **12**B, **12**C and **12**D, an exemplary embodiment of the structure **100** of FIGS. **11**A-**11**D after the first dielectric fill material **202** has been recessed is presented. FIG. **12**A is a top view of structure **100**. FIGS. **12**B, **12**C and **12**D are various side views of **12**A taken along their associated cut lines **12**B-**12**B, **12**C-**12**C and **12**D-**12**D respectively. However, for purposes of clarity in explaining the invention, each side view illustrates only the immediate surface structures cut by each side view's associated cut line and excludes any background structure.

Because the first dielectric fill material **202** is composed of a different material than that of the second dielectric fill material **203**, the first dielectric fill material may be selectively etched without significantly affecting the structure of the base **178**. Accordingly, the first dielectric fill material **202** is anisotropically etched down (or recessed) to form dielectric layer **148**. Upon doing so, the full active height **150** of the fins are exposed and the overall height **182** of the base **178** is also exposed.

Referring to FIGS. **13**A, **13**B, **13**C and **13**D, an exemplary embodiment of the structure **100** of FIGS. **12**A-**12**D after the remaining fin hardmask **200** has been removed is presented. FIG. **13**A is a top view of structure **100**. FIGS. **13**B, **13**C and **13**D are various side views of **13**A taken along their associated cut lines **13**B-**13**B, **13**C-**13**C and **13**D-**13**D respectively. However, for purposes of clarity in explaining the invention, each side view illustrates only the immediate surface structures cut by each side view's associated cut line and excludes any background structure.

After formation of the dielectric layer **148**, any remaining fin hardmask **200** is removed from the top surfaces of the fins **126**, **128**, **130**, **136**, **138** and **140** of the first array **124** and second array **134**. The hardmask may be removed by any number of well-known etching procedures, including a RIE procedure.

Referring to FIGS. **14**A, **14**B, **14**C and **14**D, an exemplary embodiment of the structure **100** of FIGS. **13**A-**13**D after the dummy gate **180** and active gates **152**, **154**, **156** and **158** have been disposed thereon is presented. FIG. **14**A is a top view of structure **100**. FIGS. **14**B, **14**C and **14**D are various side views of **14**A taken along their associated cut lines **14**B-**14**B, **14**C-**14**C and **14**D-**14**D respectively. However, for purposes of clarity in explaining the invention, each side view illustrates only the immediate surface structures cut by each side view's associated cut line and excludes any background structure.

Once the formation of the raised base **178** is complete and the active fins **126**, **128**, **130**, **136**, **138** and **140** have been exposed, oxide layer **216** and the active gates **152**, **154**, **156** and **158** can be disposed over the fins per well-known methods. Simultaneously, the dummy gate **180** can be disposed over the base **178** to complete the formation of SDB **112**.

Advantageously, the structure of SDB **112** enables the volume of S/D regions **116**, which are bounded by the SDB **112** and one of the active gates **154** and **156**, to be substan-